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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,730	10/19/2001	Michael Collins	00-682	4112

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EXAMINER

KOCZO JR, MICHAEL

ART UNIT	PAPER NUMBER
3746	

DATE MAILED: 08/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,730

Applicant(s)

COLLINS ET AL.

Examiner

Michael Kocz, Jr.

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 8-16,25 and 33-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,17-24,26-32,37-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Applicant's arguments filed July 3, 2006 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 112

Claims 37 to 40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. These claims recite a "system control box". The specification fails to clearly describe the function of this system control box. The specification merely states that "commands issued by processor 14 can be enacted on the compressor" (page 6, para. 1). However, it is not at all clear in what manner the commands are enacted and/or processed. This would impose an undue burden on one of ordinary skill in the art to make and use the invention.

Claim Rejections - 35 USC § 102

Claims 1, 2, 3, 17 and 24, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Gunn et al (US 5,820,352). Gunn et al disclose an apparatus for monitoring a compressor 12 (fig.2) comprising a plurality of sensor inputs (temperature sensors 44, 46, 48 and 49, pressure sensors 50 and 52, speed sensor 54) for indicating operating parameters of the compressor; at least one control action output for sending a control action to the compressor via

Art Unit: 3746

control loop 90; and a control member 42 communicating the plurality of sensor inputs and the control action output as indicated in the block diagram in figure. 2, the control member being adapted to analyze inputs from the plurality of sensor inputs to determine a control action via control loop 92 and speed control routing 300 (fig. 8) and discharge pressure control routing 200 (fig. 9), wherein the control action 400 (fig. 10) includes actions for immediate protection (shut down routine 404) and alert routine 414 while the compressor is continued to be operated (col. 4, line 50 to col. 7, line 34), and adjusting commands for prime mover speed control with a conventional PID algorithm in step 306 (col. 9, lines 1 to 49, fig. 8) and discharge pressure control with a valve control in step 200 (col. 9, line 50 to col. 11, line 34, fig. 9A). The display panel alarm indicator 80 is readable as "indicating that maintenance is needed".

Applicant argues that the "independent claims of the present invention are drawn to a system and apparatus wherein the desired protection is incorporated into a module. However, it is noted that most of the claims, including claim 1, do not recite a "module". Attention is furthermore directed to col. 4, lines 66 and 67, of Gunn et al which state that "The compressor control system includes an electronic control module or "ECM". See also col. 6, ll. 66 and 67.

Claim Rejections - 35 USC § 103

Claims 6, 7, 18, 19, 21 to 23, 26 to 28 and 30 to 32, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al in view of Kauffman et al (US 5,209,076). Gunn et al disclose the invention substantially as claimed. However, Gunn et al do not specifically disclose that the control member is at a remote location and communicates with a communication member and a display member. Kauffman et al disclose an apparatus for

Art Unit: 3746

monitoring a compressor (col. 1, line 57 to col. 2, line 58) comprising a plurality of inputs, compressor suction temperature 40, pressure 42, compressor discharge temperature 48 and pressure 46, oil pressure 44, monitor control device 38 (detailed in fig. 2), electrical control panel 52, control output to printer 56 and to compressor as indicated in fig. 1; control device 38 with microprocessor 60 communicating with sensors 40, 42, 44, 46 and 48 through analog to digital converter 90, keyboard manual inputs, real time clock interface 76, alarm interface 92, memory interface 80 and reset interface 102; display module 64 for a remote computer screen (col. 5, lines 29 to 34; analyzing and comparing inputs for control actions (col. 5, line 3 to col. 6, line 9). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for a microprocessor-based control process to advantageously have a microprocessor equipped with predetermined operation parameters for controls, and located remotely in a clean environment so that it will not be contaminated, and the system further equipped with a display for operator's attention as taught by Kauffman et al.

Claims 4, 5, 20 and 29, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunn et al in view of Allison et al (US 5,772,403). Gunn et al disclose the invention substantially as claimed. However, Gunn et al do not specifically disclose the commands for indicating that maintenance is needed. Allison et al disclose that a control system, for monitoring operation of a pump including a microprocessor-based controller and a plurality of sensors, can accurately determine when the next scheduled maintenance should occur (col. 9, line 66 to col. 10, line 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for a microprocessor-based control process to

Art Unit: 3746

advantageously record each type of fault signals in the computer memory for determining the next scheduled maintenance as taught by Allison et al.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

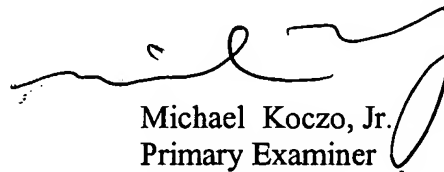
Any inquiry relating to patent applications in general should be directed to the Patent Assistance Center at 1-800-786-9199.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Koczo, Jr. whose telephone number is 571-272-4830. The examiner can normally be reached on M-Th; 7:00-3:30.

Art Unit: 3746

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony D. Stashick can be reached at 571-272-4561. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Michael Koczo, Jr.', with a large, stylized loop at the end.

Michael Koczo, Jr.
Primary Examiner
Art Unit 3746